



Tank Tips 9

on *Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations*

Withdrawing and removing systems Under the new *Storage Tank Systems for Petroleum and Allied Petroleum Products Regulations*, there are specific requirements if you withdraw from service or remove a storage tank system or a component of a storage tank system. This fact sheet summarizes the requirements, directs you to the relevant sections in the regulations and, at the end of the fact sheet, provides you with telephone numbers and web addresses if you need more information.

Tanks inappropriately disposed of can re-enter the market and cause site contamination or be used for inappropriate purposes, such as bus shelters for children or for watering livestock.

What has changed?

On June 12, 2008 Environment Canada put in place new regulations governing storage tank systems within federal jurisdiction as described in the regulations. Under the previous regulations, there were no requirements when owners or operators withdrew tank systems from service or removed them. Under the new *Storage Tank Systems for Petroleum and Allied Petroleum Products Regulations* tank owners and operators must follow specified procedures. In addition, the permanent withdrawal from service and removal of systems must be done by a person approved to do the work. Owners or operators are also required to keep records pertaining to the withdrawal from service and removal of storage tank systems and their components.

Why has Environment Canada put in new requirements for the withdrawal from service and removal of storage tank systems?

Storage tank systems that are not properly withdrawn from service can pose a serious risk to both the environment and to the people who live or work around them. For example:

- tanks that are not properly withdrawn from service contain liquids, sludge and vapours that, with a single spark on a hot day, can cause a catastrophic tank explosion.

Generation of combustible vapours is a hazard not only for the storage of pure flammable liquids, but also for the storage of any sludge or mixture where a combustible component is present or can be produced by reaction.

- tanks that are abandoned – particularly underground tanks – can corrode and leak pollutants. It may take years before the contamination is discovered and the source located.
- ‘decommissioned’ storage tanks have been found ‘recycled’ into items like water troughs or bus shelters, uses that put people at risk.

The new storage tank regulations are designed to protect both Canadians and the environment by putting in place mandatory requirements for the proper withdrawal from service and removal of storage tank systems.

Can anyone permanently withdraw a system from service or remove it?

No. If your tank system is located in a province or territory that licences or certifies contractors to remove storage tank systems, then the system must be permanently withdrawn from service and removed by a person approved to do so. If the province or territory has no licensing or certification procedure, then the work must be supervised by a professional engineer (subsections 44(1) and 45(1)). For an up-to-date list of the provinces and territories that license or certify contractors to withdraw and/or remove storage tank systems, please consult our website.

What is the difference between a temporary and a permanent withdrawal from service?

A temporary withdrawal lasts less than two years (section 42).

Any withdrawal from service of two years or more is considered a permanent withdrawal from service, and you are required to follow the procedures laid out in the regulations for a permanent withdrawal from service (section 44).

What is required when you temporarily withdraw a system from service?

Section 43 of the regulations covers the requirements for temporarily removing either a system, or component of a system, from service. You must:

- ensure that the cathodic protection is maintained and operated during the entire period the system is withdrawn from service if your system has cathodic protection (subsection 43(a));
- attach a label to the system’s fill pipe stating that the system is out of service (subsection 43(d)). This is to guard against a supplier mistakenly filling a system that, for example, is withdrawn from service to repair a leaking tank;
- keep a record of the date on which you withdrew the tank or component from service.

In a 1992 incident, while workers were welding the outside of a tank empty of liquid, the residual vapour in the storage tank exploded and propelled the tank upward and into an adjacent river. Three workers were killed and one was injured.

Is there anything you have to do before bringing the system or component back into service?

If your system or a component of your system has been withdrawn from service for more than a year then you must test it for leaks or inspect it before returning it to service. The test you carry out depends on the tank type:

- *Underground tanks* (except vertically-oriented underground tanks) or *shop-fabricated aboveground tanks* require a tank precision leak detection test (subsection 43(b) and section 21).
- *Field-erected aboveground tanks* or *vertically-oriented underground tanks* require an inspection of the floor in accordance with subsection 43(c).

What do you have to do to permanently withdraw a system from service?

If you permanently withdraw a storage tank system or component of a tank system from service, the withdrawal must be done by a person approved to do the work (subsection 44(1) and see above). You must also keep a record (for example an invoice) to prove that the work was indeed carried out by someone designated to do so, along with a record of the date the withdrawal from service took place (subsection 44(2)). In addition, you must ensure that:

- all the liquids and sludge in the tank are properly removed and disposed of (paragraph 44(3)(a))
- the tank is purged of vapour to less than 10% of the lower flammability limit and checked with a combustible gas meter (paragraph 44(3)(b))
- the withdrawal is done in such a way that it poses no short- or long-term threat to the environment or human health or safety (paragraph 44(3)(c))
- you affix a label to the fill pipe saying that the tank system is permanently out of service (44(4))
- you notify Environment Canada within 60 days that the system has been withdrawn from service (subsection 44(5)). The easiest way to do this is to update your tank identification file through our tank registry at: www.ec.gc.ca/st-rs.

A socio-economic analysis was undertaken that confirmed that liabilities for remediation of petroleum-contaminated sites in Canada are in the multi-billion dollar range and remediation will take many years to accomplish, given the size of the remediation industry.

Do you have to remove a tank that has been permanently withdrawn from service?

If you permanently withdraw a tank system from service you are required to remove the system (section 4). The removal must be done by a person approved to remove storage tank systems (subsection 45(1)) and the tank system owner/operator must keep a record that establishes that the system was removed by someone designated to do so.

When you remove a system do you have to remove tanks, piping and all components?

Under these regulations you are prohibited from abandoning storage tank systems in place. All systems must be permanently withdrawn from service and removed according to the regulations. The requirements for removal depend on the type of tanks you have (section 4).

- For *underground tanks* and *shop-fabricated aboveground tanks*, you must remove all tanks, piping and components (subsection 4(a)).
- For *field-erected aboveground tanks*, you must remove all piping and components that are outside the tanks (paragraph 4(b)). While field-erected aboveground tanks may remain in place, they still must be properly cleaned following section 44 of the regulations.

What kind of records do you have to keep when you withdraw or remove a system or component?

You must keep the following records for *five years*.

- Temporary withdrawal: you must keep a record of the date you withdrew the system or component (section 43)
- Permanent withdrawal: you must keep a record that includes the date that you withdrew the system and establishes that the withdrawal was done by a person designated in the regulations to withdraw storage tank systems from service (section 44)
- Removal: you must maintain a record that establishes that the removal was done by a person designated within the regulations to remove storage tank systems (section 45)

Where can I get more information?

On our website: www.ec.gc.ca/st-rs. If you'd like us to mail you the information below please call: 819-934-2991 (0900 h – 1700 h EST/EDT)

The following documents are available on our website:

- *Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations*
- *Tank Tips* fact sheets, each one covering a specific part of the new regulations
- *Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products*, Canadian Council of Ministers of the Environment
- *Canadian Environmental Protection Act, 1999*
- Compliance and Enforcement Policy for the *Canadian Environmental Protection Act, 1999*

If you have specific questions on the regulations please contact your regional office.

Pacific & Yukon	storage.tanks.pyr@ec.gc.ca	604-664-9100
Prairie & Northern		780-951-8600
Ontario	EnviroInfo.Ontario@ec.gc.ca	416-739-4826
Quebec	quebec.lavoieverte@ec.gc.ca	800-463-4311
Atlantic	15th.reception@ec.gc.ca	902-426-7231

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